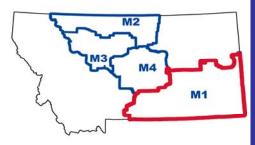
Montana Hard Red Winter Wheat Southeast Montana (Area M1)

The 2008 M1 region consisted of 12 southeastern counties. This region generally contains about 10% of Montana's winter wheat crop. This regions' quality results were based on samples taken at 4 locations. Our quality tests were facilitated by Plains Grains Incorporated. The samples were analyzed by the USDA, ARS Hard Winter Wheat Quality Lab in Manhattan, Kansas, as well as Kansas State University and the Federal Grain Inspection Service



Some popular varieties grown in the M1 region in 2008 included: Yellowstone (18%), Tiber (17%), Jagalene (10%), Neeley (8%), Jerry (6%), and Morgan (3%). Yellowstone is a Montana based variety released in 2005. It is very high yielding with medium test weight, maturity, height, and grain protein. It has excellent baking quality and good noodle quality. Tiber is a classic Montana variety released in 1987, and has average milling and baking quality.

| | 2006 | 2007 | 2008 |
|---|-------|-------|--------|
| Production Data | | | |
| Bushels produced (1,000 bu) | 8,628 | 9,164 | 11,150 |
| Average Yield bu/ac | 31 | 32 | 31 |
| Wheat Grading Data | | | |
| Test Weight (lbs. per bu.) | 62.4 | 61 | 61 |
| Test Weight (kg. per hl.) | 82.1 | 79.5 | 79.5 |
| Other Kernel Quality | | | |
| Protein (%) (Wheat, 12% MB) | 13.2 | 11.2 | 12.3 |
| Moisture (%) | 8.9 | 10.4 | 9.93 |
| 1000 Kernel Wt. (g) | 26.6 | 26.7 | 27.1 |
| Falling Number (sec) | 403 | 472 | 495 |
| Flour Quality Data | | | |
| Flour Yield (%) based on total product | 66.9 | 68.4 | 71.1 |
| Flour Ash (%) | 0.45 | 0.52 | 0.53 |
| Wet Gluten (%) (1984) | 26.5 | 27.9 | 28.8 |
| Gluten Index (%) | 99.3 | 95.4 | 95.49 |
| Physical Dough Properties | | | |
| Farinograph Pk Time (minutes) | 6.5 | 5.2 | 4.5 |
| Farinograph Tolerance/Stability (minutes) | 14 | 7.8 | 11.6 |
| Farinograph Absorption (%) | 58.4 | 57 | 61 |
| Extensibility(45 min)* | | | 135.1 |
| Resistance(45 min)B.U.* | | | 383 |
| Area(sq.cm)* | | | 88.8 |
| Extensibility(135 min)* | | | 140 |
| Resistance(135 min)B.U.* | | | 508 |
| Area(sq.cm)* | | | 122.9 |
| <u>Baking Data</u> | | | |
| Loaf Volume (cc) | 925 | 875 | 850 |
| Crum Grain (0-8) | 7 | 3.8 | 2.7 |
| Crum Texture (0-8) | 8 | 4 | 4 |

^{*}New as of 2008

Please note that new mills were used during testing in 2008, therefore data may not be comparable to previous years' results, or represent a true commercial mill.